FREYDLIN, L.Kh.; LITVIN, Ye.F.

Hydrogenation of diene hydrocarbons on a liquid phase platinum catalyst. Izv. AN SSSR. Ser.khim. no.7:1307-1312 Jl '63. (MIRA 16:9)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Hydrocarbons) (Hydrogenation)
(Platinum catalysts)

FREYDLIN, L.Kh.; SHARF, V.Z.; ABIDOV, M.A.; GLUKHOVTSEV, V.G.

Study of dimethylcyclopropylcarbinol dehydration and accompanying conversions of the newly formed hydrocarbons on acidic catalysts. Izv. AN SSSR Ser.khim. no.10:1824-1828 O '63. (MIRA 17:3)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

FREYDLIN, L.Kh.; LITVIN, Ye.F.

Hydrogenation of stereoisomers of piperylene on metallic catalysts.
Neftekhimiia 3 no.3:326-329 My-Je '63. (MIRA 16:9)

1. Institut organicheskoy khimii AN SSSR imeni Zelinskogo.
(Hydrogenation) (Piperylene) (Catalysts)

ALIYEV, Ya.Yu.; ROMANOVA, I.B.; FREYDLIN, L.Kh.

Catalytic carbonylation of anabasine. Uzb.khim.zhur. 7 no.3:43-46 '63. (MIRA 16:9)

1. Institut khimii AN UzSSR.
(Anabasine) (Carbonyl compounds)
(Catalysts)

FREYDLIN, L.Kh.; KAUP, Yu.Yu.

Selectivity and stereospecificity in the processes of hydrogenation of acetylenic hydrocarbons on metal catalysts. Dokl. AN SSSR 152 no.6:1383-1386 O '63. (MIRA 16:11)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR. Predstavleno akademikom A.A. Balandinym.

FREYDLIN, L. Kh.; SHARF, V.Z.; TUKHTAMURA[illegible] .Z.

Investigation of the direction of the dehydration of 2-methylbutanol-2 in the presence of an acid catalyst. Neftekhimiia 4 no.1:37-42 Ja-F'64 (MIRA 17:6)

1. Institut organicheskoy khimii AN SSSR imeni N.D.Zelinskogo.

FREYDLIN, L. Kh.; LITVIN, Ya.F.; [illegible]

Investigating the hydrogenation of olefins and diolefins in the presence of rhodium black. Neftekhimiia 4 no.2:185-19[illegible] Mr-Ap'64 (MIRA 17:8)

1. Institut organicheskoy khimii AN USSR imeni N.D. Zelinskogo.

FREYDLIN, L.Kh.; NAZAROVA, N.M.; LITVIN, Ye.F.; GAYVORONSKAYA, G.K.

Reaction of cyclohexane with 3-methylbutene-1 and 2-methylbutadiene-1,3. Neftekhimiia 4 no.2:246-251 Mr-Ap'64
(MIRA 17:8)

1. Institut organicheskoy khimii AN SSSR imeni Zelinskogo.

FREYDLIN, L. Kh.; SHARF, V. Z.; ARIDOV, M.A.

Investigating the dehydration of hexanediol-2,5 into hexadienes in the presence of acid catalysts. Neftekhimiia 4 no.2:308-313 Mr-Ap'64 (MIRA 17:8)

1. Institut organicheskoy khimii AN SSSR imeni Zelinskogo.

ACCESSION NR: AP4044553 S/0204/64/004/004/0547/0551

AUTHOR: Freydlin, L. Kh., Borunova, N. V., Gvinter, L. I., Laynor, D. I., Kagan, N.M.

TITLE: Investigation of the effect of cadmium on the activity and selectivity of nickel-zinc catalysts during hydrogenation of hydrocarbons

SOURCE: Neftekhimiya, v. 4, no. 4, 1964, 547-551

TOPIC TAGS: cadmium, nickel, zinc, nickel zinc catalyst, hydrogenation, catalyst selectivity, hydrocarbon, benzene, styrene, cyclohexene, octene, gas chromatography, catalytic hydrogenation

ABSTRACT: The effect of metallic cadmium on the activity and selectivity of nickel over zinc oxide catalysts during the hydrogenation of hydrocarbons, such as heptene-3 (b.p. 95.8-96.1C, $n_D^{20} = 1.4033$), a mixture of octenes (b.p. 123-125C, $n_D^{20} = 1.4140$), cyclohexene (b.p. 83C, $n_D^{20} = 1.4450$), styrene (b.p. 52-53 C/28mm Hg, $n_D^{20} = 1.5462$) and benzene (b. p. 80.1C, $n_D^{20} = 1.5017$), was investigated under flow conditions. After cooling to -5C,

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ACCESSION NR: AP4044553

the products were analyzed by gas chromatography. It was found that the relative amounts of cadmium necessary for deactivating the catalyst in the hydrogenation of benzene, cyclohexene and the ethyl bond of styrene were 0.2, 25 and 500% by weight. The probable mechanism of the action of cadmium at different temperatures was studied and discussed. It was established that a variation in the amount of Cd permits the selective hydrogenation of olefins in the presence of benzene or of styrene mited with cyclohexene. The change in the catalytic properties of nickel due to the addition of Cd is due to the change in the composition and crystal structure of the surface layer of the catalyst. Under conditions close to those of the preparation of Ni-ZnO-Cd, cadmium interacts with nickel and forms an intermetallic compound. X-ray analysis and comparison of the interplanar spacings obtained previously showed that the reaction products of mixtures containing up to 70% Cd consist of nickel crystals and β-phase crystals (Cd_1, Ni_1). For products containing only 30% nickel, there was only one line of β-phase with a further increase in the Cd content in the mixture, lines of other intermetallic compounds, apparently with a higher cadmium content (β-phase), appear. On increasing the time of reaction of the catalysts, the loss in Cd increases. New active surface sites on the Ni catalyst are set free and the activity

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ACCESSION NR: AP4044553

increases. Using a catalyst poisoned with 5% Cd the degree of hydrogenation of pentene-3 was 25% after reduction for 10 hours and 90% after 40 hours. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo, AN SSSR (Institute of Organic Chemistry, AN SSSR); Gosudarstvenny*ynauchno-issledovatel'skiy institut splavov i obrabotki tsvetny*kh metallov (State Scientific Research Institute for Alloys and Non-Ferrous Metallurgy)

SUBMITTED: 02Jul63

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OTHER: 007

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413630003-1"

FREYDLIN, L.Kh.; SHARF, V.Z.; TUKHTAMURADOV, Z.T.

Effect of the temperature of boron phosphate preparation on its specific surface, acidity, and catalytic activity in the dehydration of alcohols. Kin. i kat. 5 no.2:347-350 Mr-Ap '64. (MIRA 17:8)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.

FREYDLIN, L.Kh.; SLADKOVA, T.A.

Catalytic reduction of dinitriles. Usp. khim. 33 no.6:664-686 Je '64. (MIRA 17:8)

1. Institut organicheskoy khimii AN SSSR imeni Zelinskogo.

FREYDLIN, L.Kh.; LITVIN, Ye.F.; CHUESOVA, V.M.

Stage mechanism underlying the reduction of p-nitrostyrene in an acid medium on Pd black. Dokl. AN SSSR 155 no. 5:1144-1147 Ap '64. (MIRA 17:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR. Predstavleno akademikom A.A.Balandinym.

FREYDLIN, M., inzhener.

Technical repair plant for automobiles in the Arctic Regions.
Avt. transp. 34 no.7:36 Jl '56. (MLRA 9:10)

(Arctic regions--Automobiles--Repairing)

TITOV, V., inzh.; GEORGADZE, N., inzh.; POLTORAK, Yu., inzh.; EFENDIYEV, F., inzh.; FREYDLIN, M., inzh.

Development of the operational and technical base for automotive transportation. Avt.transp. 42 no. 4:22-24 Ap '64. (MIRA 17:5)

FREYDLIN, L.Kh.; BORUNOVA, N.V.; SAMOKHVALOV, G.I.; MIROPOL'SKAYA, M.A.; YANOTOVSKIY, M.TS.; GVINTER, L.I.; FEDOTOVA, N.I.

Directed changes in the selectivity of catalysts in the process of hydrogenation of the dienone group. Report No.1: Hydrogenation of 6-methyl-3,5-heptadien-2-one on nickel catalysts. Izv. AN SSSR. Ser. khim. no.6:996-1003 Je '64.

(MIRA 17:11)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR i Vsesoyuznyy nauchno-issledovatel'skiy i vitaminnyy institut.

BORUNOVA, M.V.; FREYDLIN, L.Kh.; GVINTER, L.I.

Changes in nickel catalyst selectivity in the process of hydrogenation of crotonaldehyde. Izv. AN SSSR. Ser. khim. no.6:1115-1117 Je '64. (MIRA 17:11)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

FREYDLIN, L.Kh.; LITVIN, Ye.F.

Mechanism of the hydrogenation of dienes with conjugate double bonds on a palladium catalyst. Neftekhimia 4 no.3:374-378 My-Je '64. (MIRA 18:2)

1. Institut organicheskoy khimii AN SSSR im. N.D.Zelinskogo.

FREYDLIN, L.Kh.; PLATE, A.F.; ZHUKOVA, I.F.; BELIKOVA, N.A.

Order of the addition of hydrogen to double bonds of 4-vinylcyclohexane-1 on Pt- and Ni-catalysts. Neftekhimia 4 no.3:382-385 My-Je '64. (MIRA 18:2)

1. Institut organicheskoy khimii AN SSSR im. N.D.Zelinskogo i Moskovskiy gosudarstvennyy universitet.

FREYDLIN, L.Kh.; BORUNOVA, N.V.; GVINTER, L.I.; LAYNER, D.I.; KAGAN, N.M.

Investigating the effect of cadmium on the activity and selectivity of nickel-zinc catalysts in the hydrogenation of hydrocarbons. Neftekhimia 4 no.4:547-551 Jl-Ag '64. (MIRA 17:10)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR i Gosudarstvennyy nauchno-issledovatel'skiy institut splavov i obrabotki tsvetnykh metallov.

FRAYLIH, L.Kh.; LITVIN, Ye.F.; [illegible]

Hydrogenation of isoprene and 2,3-dimethylbutadiene-1,3 on a skeleton cobalt catalyst. Neftekhimiia 4 no.4:552-557 Jl-Ag '64. (MIRA 17:10)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

[illegible], L.Kh.; SHAMF, V.Z.; ABIDOV, M.A.

Investigating the dehydration of vapor-phase isopentene alcohols on acid catalysts. Neftekhimiia 4 no.4:609-617 Jl-Ag '64.
(MIRA 17:10)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

FREYDLIN, L.Kh.; LITVIN, Ye.F.; SHAFRAN, R.N.

Hydrogenation of dienes with a system of conjugate double bonds on a skeleton Co-catalyst. Neftekhimiia 4 no.5:669-675 S-O '64.
(MIRA 18:1)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.

FREYDLIN, L.Kh.; LITVIN, Ye.F.; KUZNETSOV, K.

Conversions of cyclohexene in the presence of a skeleton nickel catalyst. Neftekhimiia 4 no.5:687-690 S-O '64. (MIRA 18:1)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.

FREYDLIN, L.Kh.; LITVIN, Ye.F.; SHAFRAN, R.N.

Liquid phase hydrogeration and irreversible catalysis of cyclohexene on a skeletal nickel catalyst. Izv. AN SSSR. Ser. khim. no.8:1407-1411 Ag '64. (MIRA 17:9)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

FREYDLIN, L.Kh.; KAUP, Yu.Yu.

Hydrogenation of isopropenylacetylene on a skeletal cobalt catalyst and Pd black. Izv. AN SSSR. Ser. khim. no.8:1501-1504 Ag '64. (MIRA 17:9)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

FREYDLIN, L. Kh.; KAUP, Yu.Yu.

Two aspects of selectivity and stereospecificity in the processes of hydrogenation of n-pentynes on Pd,Pt, and Rh catalysts. Izv. AN SSSR Ser. khim. no.12:2146-2151 D '64 (MIRA 18:1)

Hydrogenation of mono- and di-substituted acetylenic hydrocarbons on a skeletal cobalt catalyst. Ibid.:2152-2156

1. Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR.

FRYDLIN, L.Kh.; LITVIN, Ye.F.; LYU GUAN-KHUN [Liu Kuang-hun]

Hydrogenation of 2,3-dimethylbutadiene with hydrogen sorbed in a skeletal nickel catalyst. Izv. AN SSSR Ser. khim. no.1: 134-140 '65. (MIRA 18:2)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

SHARF, V.Z.; FREYLLIN, L.Kh.; TUKHTAMURADOV, Z.T.

Effect of the treatment of aluminum oxide by acetic acid on its activity in the dehydration of 1-pentanol and isomerization of 1-pentene. Izv. AN SSSR Ser. khim. no.2:385-387 '65.
(MIRA 18:2)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

FRENKEL', I.Ya.; SHARF, V.Z.; TSEREVITINOV, B.I.

Catalytic dehydration of a mixture of isopropanol and concomitant conversions of formed isopentenes. Izv. AN SSSR. Ser. khim. no.3: 531-534 '65. (MIRA 18:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

SLADKOVA, T.A.; FREYDLIN, L.Kh.

Effect of the structure of a silicon-containing nitrile on the course of its catalytic reduction. Izv. AN SSSR. Ser. khim. no.6: 1061-1065 '65. (MIRA 18:6)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.

FREIDLIN, L.Kh., SLADKOVA, T.A.; ENGLINA, F.E.

Reaction of hydrogenation of adipodinitrile on a nickel-magnesium catalyst in absence of ammonia. Izv. AN SSSR. Ser. khim. no.7:1248-1253 '65. (MIRA 18:7)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

L 52172-65 EWT(1)/EWA(j)/EWA(b)-2 Pz-4 RO

ACCESSION NR: AP5015540 UR/0286/65/000/008/0080/0080

AUTHORS: Aliyev, Ya. Yu.; Kamilova, R.; Romanova, I. B.; Penskaya, L. V.; Freydlin, L. Kh.; Khikmatov, A.

TITLE: A method of weed control in cotton plantings. Class 45, No. 170247

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 80

TOPIC TAGS: agriculture, pesticide, chloroformanilide, bromoformanilide

ABSTRACT: This Author Certificate presents a method for controlling weeds in cotton plantings by applying selective herbicides. To broaden the assortment of herbicides, n-chloroformanilide and n-bromoformanilide are used for this purpose.

ASSOCIATION: none

SUBMITTED: 15Nov63 ENCL: 00 SUB CODE: GC, LS

NO REF SOV: 000 OTHER: 000

Card 1/1

SHARF, V.Z.; FREYDLIN, L.Kh.; OPARINA, G.K.; KHEYFETS, V.I.; BYCHKOVA, M.K.; KOPYLEVICH, G.M.; YAKUBENOK, V.V.

Production of isoprene from formaldehyde and isobutylene via 3-methyl-1,3-butanediol. Izv. AN SSSR. Ser. khim. no.9:1663-1665 '65. (MIRA 18:9)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR i Opytno-konstruktorskoye byuro sinteticheskikh produktov Priokskogo soveta narodnogo khozyaystva, Tula.

FREYDLIN, L.Kh.; BOBUNOVA, N.V.; CVINNER, L.I.

Selectivity in the action of nickel and cobalt catalysts by modification in the course of hydrogenation of the diene group. Dokl. AN SSSR 163 no.5:1173-1176 Ag '65. (MIRA 18:8)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR. Submitted February 15, 1965.

BORUNOVA, M.V.; FREYDLIN, L.Kh.; KHOLMER, O.M.; [illegible]

Preparation of propionaldehyde by catalytic dehydrogenation of n-propyl alcohol. Izv. AN SSSR. Ser. khim. no.10:1825-1829 '65. (MIRA 18:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR i Moskovskiy zavod "Slozhnyye efiry".

FREYDLIN, M.I.

Brief review of the principal works of Russian scientists on the theory of automatic control of machinery. Sbor.nauch. rab. MIFI no.7:5-24 '54. (MLRA 10:2)

(Automatic control)

FREYDLIN, M.I.

Calculating the parameters of linear control systems based on given conditions of regulation quality. Sbor.nauch.rab. MIFI no.7:156-175 '54. (MLRA 10:2)

(Electric controllers)

S/124/63/000/002/002/052
D234/D308

AUTHOR: Freydlin, M.I.

TITLE: Calculation of parameters of discontinuous automatic control systems

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 2, 1963, 19, abstract 2A128 (Uch. zap. Vses. zaochn. in-t inzh. zh-d. transp. no. 7, 1961, 331-340)

TEXT: The author considers a transient process in a discontinuous automatic control system. The process consists of several cycles of equal duration with different disturbances which are constant for each cycle. The author replaces the solution of the equation in finite differences by the solution of a corresponding differential equation for a continuous process and obtains an estimation of damping time for the discontinuous process.
[Abstracter's note: Complete translation]

Card 1/1

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S/020/61/138/003/002/017
C111/C333

AUTHORS: Blagoveshchenskiy, Yu. N., Freydlin, M. I.

TITLE: Some properties of diffusion processes depending on a parameter

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 138, no. 3, 1961, 508-511

TEXT: The authors consider the stochastic equation

$$x_t(\alpha,\omega) - x_s(\alpha,\omega) = \int_s^t \sigma(u,\alpha,x_u(\alpha,\omega))\, d\xi_u(\omega) + \int_s^t m(u,\alpha,x_u(\alpha,\omega))\, du \qquad (1)$$

where $\xi_u(\omega) = (\xi^1_u(\omega), \xi^2_u(\omega),\ldots,\xi^n_u(\omega))$ is an n-dimensional Wiener process defined in the probability space $(\Omega, \mathfrak{M}, P)$; $\sigma(u,\alpha,x) = \{\sigma^i_j(u,\alpha,x)\}^n_{i,j=1}$ -- matrix; $m(u,\alpha,x) = (m^1(u,\alpha,x),\ldots,m^n(u,\alpha,x))$

Card 1/7

Some properties of diffusion ...

an n-dimensional vector. The integrals in (1) are stochastic integrals.

Theorem 1: Assume that there exists a constant $C < \infty$ such that for all $x,y \in R^n$; $\alpha, \beta \in A \subseteq R^m$; $u \in [0,T]$, $T < \infty$ it holds

$$\sum_{i,j=1}^{n} |\sigma_j^i(u,\alpha,x) - \sigma_j^i(u,\beta,y)| + \sum_{i=1}^{n} |m^i(u,\alpha,x) - m^i(u,\beta,y)| \leq$$

$$\leq C\,(\|\alpha - \beta\| + \|x - y\|)$$

where $\|z_1 - z_2\| = \left(\sum_{j=1}^{k} |z_1^j - z_2^j|^2\right)^{1/2}$ for $z_i = (z_i^1, z_i^2, \ldots, z_i^k)$.

Furthermore, let $x_0(\alpha,\omega)$ be continuous in $\alpha \in A$ for almost all ω.

Then there exists a random function $x_t(\alpha,\omega)$ which satisfies (1) and is continuous in $(t,\alpha) \in [0,T] \times A$ with probability 1.

Card 2/7

Some properties of diffusion ...

Theorem 2: Assume that $\sigma^i_j(u,\alpha,x)$ and $m^i(u,\alpha,x)$ possess continuous bounded derivatives with respect to α_p, x^r $(i,j,r = 1,2,..,n;\ p = 1,2,..., m)$ up to the order $k+1$ inclusively. Assume that $x_o(\alpha,\omega)$ and $d^l x_o(\alpha,\omega)/\partial\alpha_1^{l_1}\ldots d\alpha_m^{l_m}$, $l_1 + l_2 + \ldots + l_m = l \leqslant k+1$ exist for almost all ω, are bounded and continuous. Then there exist continuous derivatives $\partial^l x_t(\alpha,\omega)/\partial\alpha_1^{l_1}\partial\alpha_2^{l_2}\ldots\partial\alpha_m^{l_m}$ in (t,α) for almost all ω and all $l_1 + l_2 + \ldots + l_m = l \leqslant k$. If the existence of $d^l x_o(\alpha,\omega)/\partial\alpha_1^{l_1}\partial\alpha_2^{l_2}\ldots\partial\alpha_m^{l_m}$ is required only in the quadratic mean for all $l_1 + l_2 + \ldots + l_m = l \leqslant k+1$ and if the above requirements upon $\sigma(u,\alpha,x)$, $m(u,\alpha,x)$ are maintained, then $\partial^l x_t(\alpha,\omega)/\partial\alpha_1^{l_1}\ldots\partial\alpha_2^{l_2}\partial\alpha_m^{l_m}$ will exist also in the quadratic mean for all $l_1, l_2,\ldots, l_m$; $l_1 + l_2 + \ldots + l_m = l \leqslant k$.

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The random functions $\partial^l x_t(\alpha,\omega)/\partial\alpha_1^{l_1}\ldots\partial\alpha_n^{l_m}$, $l_1+l_2+\ldots+l_m=l\leqslant k$ satisfy the following system of stochastic equations

$$\frac{\partial^l x_t(\alpha,\omega)}{\partial\alpha_1^{l_1}\partial\alpha_2^{l_2}\ldots\partial\alpha_m^{l_m}}=\frac{\partial^l x_0(\alpha,\omega)}{\partial\alpha_1^{l_1}\partial\alpha_2^{l_2}\ldots\partial\alpha_m^{l_m}}+$$
$$+\int_0^t\frac{\partial^l\sigma(u,\alpha,x_u(\alpha,\omega))}{\partial\alpha_1^{l_1}\partial\alpha_2^{l_2}\ldots\partial\alpha_m^{l_m}}\,d\xi_u(\omega)+\int_0^t\frac{\partial^l m(u,\alpha,x_u(\alpha,\omega))}{\partial\alpha_1^{l_1}\partial\alpha_2^{l_2}\ldots\partial\alpha_m^{l_m}}\,du. \qquad (2)$$

Here it holds

$$\frac{\tilde\partial f(\alpha_1,\alpha_2,\ldots,\alpha_m;\,x^1(\alpha),x^2(\alpha),\ldots,x^n(\alpha))}{\partial\alpha_k}=\frac{\partial f}{\partial\alpha_k}+$$

Card 4/4

Some properties of diffusion ...

$$+\sum_{i=1}^{n} \frac{\partial f}{\partial x^i} \frac{\partial x^i}{\partial \alpha_k}\,; \qquad \frac{\tilde{\partial}^2 f}{\partial \alpha_i \partial \alpha_j} = \frac{\tilde{\partial}}{\partial \alpha_i}\left(\frac{\tilde{\partial} f}{\partial \alpha_j}\right)$$

From theorem 2 it follows

Theorem 3: Let $x_t^x(\omega)$ satisfy the stochastic equation

$$x_t^x(\omega) = x + \int_0^t \sigma(u, x_u^x(\omega))\, d\xi_u(\omega) + \int_0^t m(u, x_u^x(\omega))\, du \qquad (3)$$

If then $\sigma(u,x)$, $m(u,x)$ have bounded continuous derivatives with respect to x^r, $r = 1,2,\ldots, n$, up to the order $k+1$ inclusively, then there exist the derivatives $\partial^l x_t^x(\omega)/\partial(x^1)^{l_1} \ldots \partial(x^n)^{l_n}$, $l_1 + l_2 + \ldots + l_n = l$, for all $l \leq k$ and almost all ω. These derivatives exist also in the quadratic mean.

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Theorem 4: Let $x_t(\omega, \alpha)$ be a random function which satisfies (1), where the coefficients of (1) are assumed to have continuous, bounded partial derivatives up to the second order inclusively. Let denote: $\tau_D^{x,\alpha}(\omega) = \inf \{t : x_t(\omega, \alpha) \in D\}$, where D is a domain in R^n, the boundary of which Γ has a continuously rotating normal. If then $\det \left| \sum_{j=1}^{n} b_j^i(t,x) \right|_1^n \neq 0$ for $x \in \Gamma$ and $t \geq 0$, then with probability 1 it holds

$$\frac{\partial \tau_D(\omega)}{\partial \alpha_i} = 0, \quad i = 1,2,\ldots, m$$

for all α except a certain set $\Lambda(\omega) \in R^m$ with Lebesgue measure zero.

For the proof of the theorems the authors use the following generalization of the well-known theorem of A. N. Kolmogorov:

Theorem: Let $x_\mu(\omega)$ be a separable random field defined for $\mu \in R^m$

Card 6/7

and which attains values from the n-dimensional Euclidean space R^n. In order that $x_\mu(\omega)$ be continuous in μ with probability 1, it is sufficient that for certain $\gamma > 0$ and $\varepsilon > 0$ the inequality

$$M \| x_\mu(\omega) - x_{\mu'}(\omega) \|^\gamma \leq C \| \mu - \mu' \|^{m+\varepsilon}$$

is satisfied.

J.V. Girsanov is mentioned in the paper. The authors thank Ye.B. Dynkin for the subject and advices.

There are 2 non-Soviet-bloc references. The reference to English-language publication reads as follows: J. Doob, Veroyatnostnyye protsessy [Stochastic processes] , JL, 1956.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosov (Moscow State University imeni M.V.Lomonosov)
PRESENTED: January 21, 1961, by A. N. Kolmogorov, Academician
SUBMITTED: January 14, 1961

Card 7/7

Transactions of the 6th Conf. on Probability Theory and Mathematical Statistics and of the Symposium on Distributions in Infinite-Dimensional Spaces held in Vil'nyus, 5-10 Sep '60. Vil'nyus Gospolitizdat Lit SSR, 1962. 493 p. 2500 copies printed

37377

S/020/62/143/006/006/024
B125/B112

AUTHOR: Freydlin, M. I.

TITLE: Mixed boundary value problem for second-order elliptic differential equations with small parameters

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 6, 1962, 1300 - 1303

TEXT: After the construction of a Markov process X^ε the asymptotic behavior of the solution of the problem $L^\varepsilon u^\varepsilon(x) = 0$ for $x \in D$; $u^\varepsilon(x)\big|_{x \in \Gamma_1} = \varphi(x)$; $\partial u^\varepsilon/\partial l\big|_{x \in \Gamma_2} = 0$ (2) for $\varepsilon \to 0$ is studied. Solution (2) is the mathematical expectation value of a certain functional of the trajectory of the process X^ε. Γ_2 is a subset open with respect to Γ, and $\Gamma_1 = \Gamma \setminus \Gamma_2$. $\varphi(x)$ is a function continuous on Γ_1; $l(x), x \in \Gamma$ is a vector field of class C^3. In addition, $(x) = \{b_1(x), \ldots, b_n(x)\}$, and $\tau^\varepsilon = \inf\{t : x_t^\varepsilon \in \Gamma_1\}$.

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Mixed boundary value ...

The random function $x_t^\varepsilon(\omega)$ is defined by

$$x_t^\varepsilon(\omega) = \begin{cases} \tilde{x}_t^\varepsilon(\omega), & \text{если } t < \tau^\varepsilon \text{ и } \tilde{x}_t^\varepsilon \in D; \\ \varphi(\tilde{x}_t^\varepsilon(\omega)), & \text{если } t < \tau^\varepsilon \text{ и } \tilde{x}_t^\varepsilon \in D'; \\ x_{\tau^\varepsilon}^\varepsilon(\omega), & \text{если } t \geqslant \tau^\varepsilon. \end{cases}$$

The measure P_x^ε is defined such that the pair $X^\varepsilon = \{x_t^\varepsilon, P_x^\varepsilon\}$ forms a Markov process. For the matrix $\sigma(x) = \{\sigma_{ij}(x)\}$ one finds $\{a_{ij}(x)\} = \sigma(x)\sigma^*(x)$. Then the following theorems are valid among others: Theorem 1: For any $\varepsilon > 0$, the function $u^\varepsilon(x) = M_x \psi(x_\tau^\varepsilon) = \int_\Omega \psi(x_\tau^\varepsilon) P_x(d\omega)$ is a solution of problem (2). Theorem 2: $u^\varepsilon(x)$ is assumed to be a solution of problem (2), and $H_1(x) \in \Gamma_1$ is supposed to hold for the point $x \in D$. Then, $\lim_{\varepsilon \to 0} u^\varepsilon(x) = \psi(H_1(x))$. Furthermore, it is assumed that $H_1(x) \in \Gamma_2$. Then, theorem 3

Mixed boundary value ...

is valid: $b_1(x,0)\neq 0$ for $x \in (\alpha, \beta)$. Accordingly, $\lim_{\varepsilon \to 0} u^{\varepsilon} = \psi(\beta)$ for $b_1(x,0) > 0$ and $\lim_{\varepsilon \to 0} u^{\varepsilon}(x) = \psi(\alpha)$ for $b_1(x,0) < 0$. Theorems 4 and 6: Under certain conditions specified here, the boundary value problem (5) and the problem

$$[\sigma_{11}^2(x,0) + \sigma_{12}^2(x,0)]\frac{d^2u}{dx^2} \frac{b_{1y}^{(k)}(x,0)}{b_{1y}^{(l)}(x,0)} [\sigma_{21}^2(x,0) + \sigma_{22}^2(x,0)]\frac{du}{dx} = 0,$$

$$u(\alpha) = \psi(\alpha), \quad u(\beta) = \psi(\beta).$$

are solved by $u(x) = \lim_{\varepsilon \to 0} u^{\varepsilon}(x)$.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: December 8, 1961, by A. N. Kolmogorov, Academician

SUBMITTED: December 8, 1961

Card 3/3

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S/020/62/144/003/005/030
B112/B104

AUTHOR: Freydlin, M. I.

TITLE: Dirichlet's problem for an equation with small parameter and discontinuous coefficients

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 3, 1962, 501-504

TEXT: The elliptic differential operator

$$L^{\varepsilon} = \varepsilon^2((1/2)\sum_{i,j=1}^{n} a_{ij}(x)\partial^2/\partial x^i \partial x^j + \sum_{i=1}^{n} b_i(x)\partial/\partial x^i) + \sum_{i=1}^{n} \tilde{b}_i(x)\partial/\partial x^i$$

is defined in a domain D with Γ as its boundary. It has discontinuous coefficients on a (n-1)-dimensional manifold SCD. The boundary-value problem $L^{\varepsilon}u^{\varepsilon}(x) = 0$ for $x \in D \setminus S$, $\lim_{x \to x_0} u^{\varepsilon}(x) = \psi(x_0)$ for $x_0 \in \Gamma$ is investigated. Some theorems concerning the asymptotic behavior of $u^{\varepsilon}(x)$ for $\varepsilon \to 0$ are derived.

PRESENTED: January 10, 1962, by A. N. Kolmogorov, Academician

Card 1/2

S/020/62/144/003/005/030
B112/B104

Dirichlet's problem for an ...

SUBMITTED: January 9, 1962

Card 2/2

TUTUBALIN, V.N.; FREYDLIN, M.I. (Moscow)

Structure of the infinitesimal G-algebra of a Gaussian process.
Teor. veroiat. i ee prim. 7 no.2:204-208 '62. (MIRA 15:5)
(Algebraic topology)
(Probabilities)

S/038/62/026/005/001/003
B112/B186

AUTHOR: Freydlin, M. I.

TITLE: Stochastic Itô equations and degenerated elliptic equations

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya matematicheskaya, v. 26, no. 5, 1962, 653-676

TEXT: Dirichlet's problem for the degenerated elliptic equation Lu=0, where $L = (1/2)\sum a_{ij}(x^1,\ldots,x^n)\partial^2/\partial x^i \partial x^j + \sum b_i(x^1,\ldots,x^n)\partial/\partial x^i$ (1) is solved by an unambiguous generalized solution. Using the stochastic integral equation

$$x_t^i - x_o^i = \int_o^t \sum_{j=1}^n \sigma_{ij}(x_u)d\xi_u^j + \int_o^t b_i(x_u)du, \qquad (2)$$

a Markovian random process $\tilde{X}$ is constructed, which can be controlled by the operator (1). This process is transformed into a process X at the moment

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when the trajectories of X enter the domain D of definition in which the Dirichlet problem is considered. The infinitesimal operator A of the process X is shown to be an extension of the operator L. Furthermore, the boundary value problem

$$A\,u(x) = 0, \qquad \lim_{x \to x_0 \in \Gamma} u(x) = \varphi(x_0)$$

is considered, where the function $\varphi(x)$ is given on the boundary of the domain D. Its solution may be regarded as the mean value of a certain functional of the process X. Sufficient conditions of uniqueness are derived. The continuity of the generalized solution is proved under certain additional restrictions. The proofs of this paper are based on the theory of stochastic integral equations due to K. Itô (Nagoya Math. J., v. 1 (1950), 35-47, 3 (1951), 55-65) and on Ye. B. Dynkin's theorems concerning stochastic processes (Infinitezimal'nyye operatory markovskikh protsessov, Teoriya veroyatnostey i yeye primeneniya - Infinitesimal operators of Markovian processes, Theory of probability and its applications, v. 1, no.1 (1956), 38-59, Osnovaniya teorii markovskikh protsessov - Foundations of the theory of Markovian processes, Fizmatgiz, 1959).

SUBMITTED: March 10, 1961
Card 2/2

S/052/63/008/001/005/005
B112/B186

AUTHOR: Freydlin, M. I.

TITLE: Diffusion processes with reflection and a third boundary-value problem

PERIODICAL: Teoriya veroyatnostey i yeye primeneniya, v. 8, no. 1, 1963, 80 - 88

TEXT: A Markov process is constructed on a topological manifold D with reflection at the boundary Γ. By means of this process, the boundary-value problem

$$Lu(x) = f(x) \quad \text{for } x \in D \setminus \Gamma, \ \partial u(x)/\partial l\big|_{x \in \Gamma} = 0$$

is studied. L is an elliptic second-order differential operator. As particular results, new theorems concerning the existence and uniqueness of solutions to problems with oblique derivative and the stabilization of solutions to certain parabolic equations are established.

SUBMITTED: May 31, 1961

Card 1/1

ACCESSION NR: AP4016037 S/0052/64/009/001/0133/0139

AUTHOR: Freydlin, M. I. (Moscow)

TITLE: Dirichlet problem for an equation with periodic coefficients depending on a small parameter

SOURCE: Teoriya veroyatnostey i yeye primeneniya, v. 9, no. 1, 1964, 133-139

TOPIC TAGS: Dirichlet problem, periodic coefficient, small parameter, elliptic differential operator, limiting behavior, stochastic differential equation, probability representation, torus, Markov process, limiting distribution

ABSTRACT: Consider a nondegenerate elliptic differential operator

$$L^\varepsilon = \frac{1}{2}\sum_{i,j=1}^{n} a_{ij}\left(\frac{x}{\varepsilon}\right)\frac{\partial^2}{\partial x^i \partial x^j} + \sum_{i=1}^{n} b_i\left(\frac{x}{\varepsilon}\right)\frac{\partial}{\partial x^i}. \quad (1)$$

Assume that $a_{ij}(x^1,\ldots,x^n)$, $b_i(x^1,\ldots,x^n)$ are periodic functions in all their arguments with period unity, $a_{ij}(x)$, $b_i(x) \in (R^n)$. Let D be a bounded region in R^n with smooth boundary Γ, let $\psi(x)$ be a continuous function given on Γ, and let

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ACCESSION NR: AP4016037

$c(x)$ be a nonnegative periodic function with period unity from $C^1(R^n)$. Consider the Dirichlet problem in D:

$$L^\varepsilon u^\varepsilon(x) - c\left(\frac{x}{\varepsilon}\right) u^\varepsilon(x) = 0,\ u^\varepsilon(x)|_\Gamma = \phi(x). \quad (2)$$

The author studies the limiting behavior of $u^\varepsilon(x)$ as $\varepsilon \to \infty$. His basic apparatus is a stochastic differential equation and a probability representation of the solution of (2). He proves the following theorem: The limit $u(x) = \lim_{\varepsilon \to 0} u^\varepsilon(x)$ exists for each $x \in D$. The function $u(x)$ is the solution of the boundary value problem

$$\bar{L}u(x) = \frac{1}{2}\sum_{i,j=1}^{n} \bar{a}_{ij}\frac{\partial^2 u}{\partial x^i \partial x^j} + \sum_{i=1}^{n} \bar{b}_i \frac{\partial u}{\partial x^i} - \bar{c}u(x) = 0, \quad (3)$$

$$u(x)|_\Gamma = \phi(x).$$

where the coefficients $\bar{a}_{ij}$ and $\bar{b}_i$ are obtained from the a_{ij} and b_i by averaging relative to a density μ which is the solution of

$$(L^1)^*\mu(x) = \frac{1}{2}\sum_{i,j=1}^{n} \frac{\partial^2}{\partial x^i \partial x^j}(a_{ij}(x)\mu(x)) = 0 \quad (4)$$

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ACCESSION NR: AP4016037

Orig. art. has: 11 formulas.

ASSOCIATION: none

SUBMITTED: 25May63	DATE ACQ: 19Mar64	ENCL: 00
SUB CODE: MM	NO REF SOV: 007	OTHER: 001

Card 3/3

L 14379-65 EWT(d) IJP(c)/SSD/ASD(a)-5/AFWL/AFMD(c)/AFETR/AFTC(a)/ESD(dp)/
ACCESSION NR: AP4045619 ESD(si) S/0020/64/158/002/0281/0283

AUTHOR: Freydlin, M. I.; Kolmogorov, A. N. (Academician)

TITLE: On a priori estimates of solutions of degenerate elliptic equations

SOURCE: Doklady*, v. 158, no. 2, 1964, 281-283

TOPIC TAGS: degenerate elliptic equation, a priori solution estimate, Markov process, Markov process trajectory, Dirichlet problem, elliptic operator

ABSTRACT: Determination of certain a priori estimates of the generalized solution of the Dirichlet problem

$$Lu(x) -- c(x)u(x) = 0, \quad x \in D, \qquad (1)$$
$$u(x)|_{\Gamma} = \psi(x),$$

where L is an elliptic differential operator (it can also be degenerate), c(x) is a continuous nonnegative function in n-dimensional space, and $\psi(x)$ is continuous on the boundary Γ, constructed earlier

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L 14379-65
ACCESSION NR: AP4045619

by the author (Akademiya nauk SSSR, Izvestiya, ser. matem., v. 25, no. 6, 1962), is considered. On the basis of a certain Stochastic equation, the Markov process is constructed by which a new expression for the generalized solution of (1) is derived whose behavior is analyzed in connection with the behavior of the Markov process trajectories. Conditions are presented under which a priori estimates of the generalized solution and of its derivatives are established. Estimates derived make it possible to analyze the smoothness of solutions of the degenerate equations as well as to construct the generalized solution of the Dirichlet problem for degenerate quasilinear equations. Orig. art. has: 4 formulas.

ASSOCIATION: none

SUBMITTED: 17Apr64 ENCL: 00 SUB CODE: MA

NO REF SOV: 004 OTHER: 000

Card 2/2

FREYLIN, . . .

Note on the generalized solution of the Dirichlet problem. Teor. veroiat. i ee prim. 10 no.1:175-178 '65.
(MIRA 18:3)

FREYDLIN, M.I.

Diffusion processes and the small parameter in elliptic equations with discontinuous coefficients. Izv. AN SSSR. Ser. mat. 29 no.5: 1005-1036 '65. (MIRA 18:10)

L 17707-66 EWT(1)

ACC NR: AP6004657 SOURCE CODE: UR/0038/65/029/005/1005/1036

AUTHOR: Freydlin, M. I.

31
B

ORG: none

21,44,55

TITLE: Diffusion processes and a small parameter in elliptic equations with discontinuous coefficients

SOURCE: AN SSSR. Izvestiya. Seriya matematicheskaya, v. 29, no. 5, 1965, 1005-1036

TOPIC TAGS: diffusion, differential equation, Markov process, stochastic process

ABSTRACT: The author considers the limiting behavior of the solution as $\epsilon \to 0$ of the Dirichlet problem for

$$L^{\epsilon} = \epsilon^{2}\left(\frac{1}{2}\sum_{i,j=1}^{n} a_{ij}(x)\frac{\partial^{2}}{\partial x^{i}\partial x^{j}} + \sum b_{i}(x)\frac{\partial}{\partial x^{i}}\right) + \sum_{i=1}^{n} B_{i}(x)\frac{\partial}{\partial x^{i}}. \qquad (1)$$

where the coefficients of L^{ϵ} have a discontinuity along some smooth n-1 dimensional surface S. Special attention is given to the case where the degenerate

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UDC: 517.9

2

L 17707-66
ACC NR: AP6004657

equation has no classical solution. The method used is that of constructing a Markov diffusion process X^{ε} such that the solution of the Dirichlet problem for L^{ε} is the mathematical expectation of some functional of X^{ε}. Orig. art. has: 83 formulas.

SUB CODE: 12/ SUBM DATE: 23Apr64/ ORIG REF: 011/ OTH REF: 005

Card 2/2 nst

L 44773-66 EWT(d) IJP(c)

ACC NR: AP6030789 SOURCE CODE: UR/0052/66/011/003/0463/0471

AUTHOR: Freydlin, M. I. (Moscow)

ORG: none

TITLE: The exterior Dirichlet problem in the class of bounded functions

SOURCE: Teoriya veroyatnostey i yeye primeneniya, v. 11, no. 3, 1966, 463-471

TOPIC TAGS: Dirichlet problem, boundary value problem, elliptic differential operator, bounded function

ABSTRACT: The problem of the existence and uniqueness of solutions in the class of bounded functions of the exterior Dirichlet problem

$$Lu(x) = 0, \quad u(x)|_\Gamma = \psi(x), \tag{1}$$

where L is a given differential operator of the form

$$L = \frac{1}{2}\sum_{i,j=1}^{n} a_{ij}(x)\frac{\partial^2}{\partial x_i \partial x_j} + \sum_{i=1}^{n} b_i(x)\frac{\partial}{\partial x_i}, \tag{2}$$

whose coefficients $a_{ij}(x)$ and $b_i(x)$ and their first derivatives are bounded functions, is analysed under the assumptions that the function $\psi(x)$ is continuous and the boundary

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L 44773-66

ACC NR: AP6030789

Γ of the domain is a smooth curve. This problem is reformulated in the language of probability theory as the problem of the behavior of trajectories of the Markov process at $t \to \infty$. By applying the methods of probability theory, theorems are proved establishing the condition to be imposed upon function $u(x)$ at $|x| \to \infty$ ensuring the existence and uniqueness of solutions of problem (1). It is also deduced that there exists a nontrivial boundary at infinity whose construction depends in certain definite cases on the behavior of the vector field $b(x) = (b_1(x), \ldots, b_n(x))$ at $|x| \to \infty$. It is pointed out that theorems of the existence and uniqueness of solutions of problem (1) in the class of functions that do not increase too fast can be derived by analogous methods. Orig. art. has: 8 formulas. [LK]

SUB CODE: 12/ SUBM DATE: 06Jun65/ ORIG REF: 003/ OTH REF: 001/ ATD PRESS: 5080

Card 2/2 UDC

FREYDLIN, M.L.

ZIL'BERBERG, A.L.; FREYDLIN, M.L.

Tasks of MNP planning institutes in industrializing the assembly of piping systems. Stroi.pred.neft.prom. 1 no.8: 4-5 O '56. (MLRA 9:12)

1. Nachal'nik tekhnicheskogo otdela Glavneftemontazha (for Zil'berberg) 2. Nachal'nik otdela proyektno-naladochnoy kontory tresta no.18 (for Freydlin).
(Petroleum--Refining)

ZILBERBERG, Aleksandr Lazarevich; FREYDLIN, Mark Lazarevich; YERSHOV, P.R., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Preparation and assembling of industrial pipelines in petroleum refineries] Izgotovlenie i montazh tekhnologicheskikh truboprovodov neftepererabatyvaiushchikh zavodov. Moskva, Gos.nauchno-tekhn. izd-vo neft.i gorno-toplivnoi lit-ry, 1957. 179 p. (MIRA 10:12)
(Pipelines) (Petroleum refineries)

ZIL'BERBERG, A.L., inzh.; NAUMOV, V.G., inzh.; FREYDLIN, M.L., inzh.; FAL'KEVICH, A.S., kand.tekhn.nauk, nauchnyy red.; TYULENEVA, L.M., red.izd-va; BOROVNEV, N.K., tekhn.red.

[Preparing and assembling industrial pipelines] Izgotovlenie i montazh tekhnologicheskikh truboprovodov. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 386 p. (MIRA 14:4)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye po montazhu tekhnologicheskogo oborudovaniya i proizvodstvu montazhnykh rabot. (Pipe)

L 56064-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM
ACCESSION NR: AP5018558 UR/0020/64/158/004/0922/0925

AUTHOR: Englin, B. A.; Freydlina, R. Kh. (Corresponding member of AN SSSR) 24 B

TITLE: Kinetics of the telomerization of ethylene by carbon tetrachloride and chloroform. Q-e scheme

SOURCE: AN SSSR. Doklady, v. 158, no. 4, 1964, 922-925

TOPIC TAGS: ethylene, chlorinated organic compound, polymerization

Abstarct: The radical mechanism of the telomerization of ethylene by carbon tetrachloride is outlined. The influence of temperature on the constants of trasnfer of trichloroalkyl radicals of different chain lengths was studied in stainless steel autoclaves in the presence of tertiary butyl peroxide or azobisisobutyronitrile, at ethylene:telogen ratios from 3:1 to 12:1. The particular transfer constants increased 10 to 130-fold with increasing chain length n from 1 to 5, but then remained constant. The transfer constant was two to three times lower for chloroform than for carbon tetrachloride. Differences in the rates of the reactions of transfer and chain propagation with the participation of any radical (except for trichloroamyl) were explained chiefly by differences in the activation energies of these processes, rather than by steric effects. The telomerization of ethylene by $CHCl_3$, in constrast

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L 56064-65
ACCESSION NR: AP5018558

to CCl_4, was practically thermoneutral. The constants of chain transfer were expressed in a Q-e scheme, where Q_{tel} and Q_m are proportional to the reactivities of the telogen and monomer, while e_{tel} and e_m characterize their polar properties. The increase in the transfer constants with increasing length of the radical chain n from 1 to 5 monomer units was found to be essentially related to the change in the rate constants of the reactions of chain transfer as a result of a reduction of the inductive influence of the trichloromethyl group. Orig. art. has 5 formulas, 1 graph, and 4 tables.

ASSOCIATION: none

SUBMITTED: 01Jun64 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 002 OTHER: 009 JPRS

Card 2/2

L 52166-65 EWT(m)/EPF(c)/EPR/EWP(j)/EWA(c) Pc-4/Pr-4/Ps-4 RPL WW/RM
ACCESSION NR: AP5015238 UR/0286/65/000/009/0021/0021
547.419.5

AUTHOR: Freydlina, R. Kh.; Chukovskaya, Ye. Ts.

TITLE: Preparative method for (1,1,1-trifluoropropyl)methyldiclorosilane. Class 12, No. 170495

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 21

TOPIC TAGS: silane, preparation, trifluoropropylmethyldichlorosilane

ABSTRACT: An Author Certificate has been issued for a preparative method for (1,1,1-trifluoropropyl)methyldichlorosilane, involving the reaction of 1,1,1-trifluoropropene with methyldichlorosilane in the presence of dicyclohexyl peroxydicarbonate initiator with heating to 50--60C. [SM]

ASSOCIATION: none

SUBMITTED: 31Jan63 ENCL: 00 SUB CODE: OC,GC

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4018

Card 1/1

1. FREYDLIN, S. M.

2. USSR (600)

4. Stomach--Diseases

7. Clinical and roentgenologic picture of gastric choristoma (type of pancreas accessorius), Klin. med., 30, No. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

REYNBERG, S.A., professor, zasluzhennyy deyatel' nauki; FREYDLIN, S.M.; MUZYCHENKO, A.P., direktor.

Clinical and roentgenological diagnosis of sarcoma of the duodenum. Vest. rent.i rad. no.3:90-93 My-Je '53. (MLRA 6:8)

1. Rentgenologicheskiy otdel Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F.Vladimirskogo (for Freydlin and Reynberg). 2. Moskovskiy oblastnoy nauchno-issledovatel'skiy klinicheskiy institut imeni M.F.Vladimirskogo (for Muzychenko).
(Duodenum--Tumors) (Diagnosis, Radioscopic)

FREYDLIN, S.M. (Moscow).

Clinical X-ray diagnosis of the prolapse of the pyloric mucosa into the duodenal bulb. Klin.med. 31 no.10:72-77 O '53. (MLRA 6:11)

1. Iz rentgenologicheskogo otdela (zaveduyushchiy - zasluzhennyy deyatel' nauki professor S.A.Reynberg) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta im. M.F.Vladimirskogo.
(Diagnosis, Radioscopic) (Pelyrus) (Duodenum)

FREYDLIN, S.M. (Moskva)

Rate of onset of atelectasis. Klin.med. 33 no.12:35-38 D '55.
(MLRA 9:5)

1. Iz rentgenologicheskogo otdeleniya (zav. S.M.Freydlin) Moskovskoy gorodskoy bol'nitsy No.47 (glavnyy vrach M.A.Sirotin)
(LUNGS--COLLAPSE)

596. FREYDLIN S.M. City Hosp., No 47, Moscow. *The rapidity of the development of atelectasis (Russian text) KLIN. MED. (Mosk.) 1955, 33/12 (35-38) Illus. 6

During X-ray examination of a patient of the surgical department of the X-ray Institute in Moscow, the entire postoperative development of atelectases (appen-

596 CONT

dicectomy) could be observed as early as the first 30 minutes after operation.
Frey - Berlin

FREYDLIN, S.M.

Bronchogenic cancer which developed from bronchiectasis with abscess formation. Terap.arkh. 29 no.6:46-47 Je '57. (MIRA 10:10)

1. Iz rentgenovskogo otdeleniya (zav. S.M.Freydlin) Moskovskoy gorodskoy bol'nitsy No.47.

(LUNG NEOPLASMS, etiology and pathogenesis.
bronchogenic cancer develop. from abscessing
broncheictasis (Rus))
(BRONCHIECTASIS, complications,
same)

FREYDLIN, S.M. (Moskva)

Postoperative pulmonary atelectasis. Klin.med. 38 no.11:50-55 N '60. (MIRA 13:12)

1.Iz rentgenologicheskogo otdeleniya (zav. S.M. Freydlin) Moskovskoy gorodskoy bol'nitsy No.47 (glavnyy vrach A.A. Pavlova, nauchnyy rukovoditel' - zasluzhennyy deyatel' nauki prof. I.L.Fayerman).
(LUNGS—COLLAPSE) (OPERATIONS, SURGICAL)

FREYDLIN, S.Ya., prof.

Forms and methods of assistance given by a medical institute to operating public health establishments. Zdrav. Ros. Feder. 4 no.9:15-18 S '60. (MIRA 13:9)

1. Iz kafedry organizatsii zdravookhraneniya I Leningradskogo meditsinskogo instituta im. I.P.Pavlova (dir. A.I. Ivanov).
(PUBLIC HEALTH)

FREYDLIN, S.Ya., prof. (Leningrad)

Reorganization of teaching of public health organization in medical departments. Sov.zdrav.19 no.7:23-26 '60. (MIRA 13:8)

1. Iz kafedry organizatsii zdravookhraneniya Leningradskogo meditsinskogo instituta im. I.P. Pavlova (dir. A.I. Ivanov).
(PUBLIC HEALTH ADMINISTRATION--STUDY AND TEACHING)

FREYDLIN, S.Ya., prof.

"Textbook for a practical course in the organization of the public health system" by K.V.Maistrakh, IA. I.Rodov. Reviewed by S.IA. Freidlin. Zdrav. Ros. Feder. 5 no.1:39-40 Ja '61. (MIRA 14:1)
(PUBLIC HEALTH) (MAISTRAKH, K.V.)
(RODOV, IA.I.)

FREYDLIN, S.M.

Cyst of the large intestine. Vest. rent. i rad. 37 no.2:64-65 Mr-Ap '62. (MIRA 15:4)

1. Iz rentgenovskogo otdeleniya (zav. S.M.Freydlin) Moskovskoy gorodskoy bol'nitsy No.47 (glavnyy vrach A.A.Pavlova).
(INTESTINES--TUMORS) (CYSTS)

FREYDLIN, S.M.

Pulmonary candidomycosis. Sov. Med. 26 no.9:10-15 S '62.
(MIRA 17:4)

1. Iz rentgenovskogo otdeleniya (zav. S.M. Freydlin) Moskovskoy gorodskoy bol'nitsy No.47 (glavnyy vrach A.A. Pavlova).

FREYDLIN, S.M. (Moskva)

Incomplete postoperative atelectasis of the lungs. (hypoventilation). Klin. med. 40 no.12:82-87 D '62.
(MIRA 17:2)

1. Iz rentgenologicheskogo otdeleniya (zav. S.M. Freydlin) Moskovskoy gorodskoy bol'nitsy No.47 (glavnyy vrach A.A. Pavlova; nauchnyy rukovoditel' - prof. I.L. Fayerman).

FREYDLIN, Solomon Yakovlevich; RAVKIND, B.M., red.; BUGROVA, T.I., tekhn. red.

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